



UNITED STATES PATENT AND TRADEMARK OFFICE

cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,963	11/13/2003	Takeshi Fujimoto	2018-803	6722

23117 7590 10/18/2007
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

KAPLAN, HAL IRA

ART UNIT	PAPER NUMBER
----------	--------------

2836

MAIL DATE	DELIVERY MODE
-----------	---------------

10/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/705,963

Applicant(s)

FUJIMOTO ET AL.

Examiner

Hal I. Kaplan

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2007.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5, 7-13, 17, 18 and 20-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 12, 13, 24 and 25 is/are allowed.
6) ☒ Claim(s) 3, 4, 7, 8, 10, 17, 20, 22 and 26-29 is/are rejected.
7) ☒ Claim(s) 5, 9, 11, 18, 21 and 23 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date: 20070718.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The indicated allowability of claims 3, 4, 7, 8, 10, 17, 20, 22, and 26-29 is withdrawn in view of the newly discovered reference(s) to Morita, Iwasaki et al., Itoyama et al., Ando et al., and Nagasaka et al. Rejections based on the newly cited reference(s) follow.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 2836

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3, 17, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the US patent of Iwatani et al. (6,629,512) in view of the US patent of Nagasaka et al. (6,982,632).

As to claims 3 and 17, Iwatani, drawn to an internal combustion engine with heat accumulating device, teaches a system read on the claimed system, comprising: warming-up means (21) for executing warming-up of an engine (10) (see column 9, lines 56-56 and 64-67); pre-start state detecting means (sensors) for detecting a pre-start state by detecting a preparation for a start of the engine (10) (see column 6, lines 53-54), wherein the warming-up means (21) executes the warming-up prior to the start of the engine when the pre-start state detecting means detects the pre-start state (see column 6, lines 45-58 and 66-67, and column 7, lines 10-17); anomaly detecting means (30) for detecting an anomaly of the pre-start state detecting means (see column 4, lines 33-55 and column 21, lines 2-3 and 5-8); and vehicle state detecting means (22a,23a,25a,26,27,27a,28) for detecting a vehicle state, wherein the pre-start state detecting means detects the pre-start state based on a given signal, and wherein the anomaly detecting means detects the anomaly of the pre-start state detecting means based on the given signal and the vehicle state detected by the vehicle state detecting means (see column 6, lines 52-58). Iwatani does not disclose the pre-start state

detecting means detecting the pre-start state based on an ON-signal or an OFF-signal of a driver seat switch as the given signal.

Nagasaka discloses pre-start state detecting means (39) which detects a pre-start state based on an ON- or OFF-signal of a driver seat switch, wherein the ON- or OFF-signal of the driver seat switch indicates whether a driver is seated on a driver's seat (52) (see column 5, lines 50-54 and Figure 4). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Iwatani to detect a pre-start state based on an ON- or OFF-signal of a driver seat switch, in order to prevent the occurrence of a dangerous condition when no driver is seated.

As to claim 28, the pre-start state detecting means of Iwatani detects the pre-start state based on an ON-signal or an OFF-signal of an ignition key insertion switch as the given signal (see column 6, lines 45-47), a position of the ignition key being positioned at an ON or START position is detected (27) (see column 6, lines 57-58).

6. Claims 4, 7, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani in view of Nagasaka, and further in view of the US patent of Morita (5,243,852).

As to claims 4, 7, 26, and 27, Iwatani in view of Nagasaka disclose all of the claimed features, as set forth above, except for at least one of the eight claimed conditions. Morita discloses an anomaly detecting means which detects an anomaly when an engine rotation speed is greater than or equal to a given (predetermined) speed (second condition) (see column 3, lines 1-6 and 38-43; column 4, lines 15-59;

and Figures 1-3). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have detected an anomaly of the pre-start state detecting means when the ON-signal of the driver seat switch is not detected and the engine rotation speed is greater than or equal to a predetermined speed, because if the engine is running, then a driver is usually seated, and thus the ON-signal should be detected.

7. Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani in view of the US patent of Ando et al. (6,727,823).

As to claims 8 and 20, Iwatani discloses all of the claimed features, as set forth above, except for the pre-start state detecting means detecting the pre-start state based on a door opening/closing switch signal as the given signal.

Ando discloses pre-start state detecting means (4) which detects a pre-start state based on a door opening/closing switch signal, wherein the door opening/closing switch signal indicates whether a door of the vehicle is open or closed (see column 3, lines 31-37 and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Iwatani to detect a pre-start state based on a door opening/closing switch signal, in order to ensure that the system knows when a door is opened or closed.

8. Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani in view of the US patent of Iwasaki et al. (6,072,403).

As to claims 10 and 22, Iwatani discloses all of the claimed features, as set forth above, except for the pre-start state detecting means detecting the pre-start state based on a door-handle manipulation switch signal as the given signal.

Iwasaki discloses pre-start state detecting means (4) which detects a pre-start state based on a door-handle manipulation switch signal, wherein the door-handle manipulation switch signal indicates an operation state of a door-handle of the vehicle (see column 5, lines 16-21; column 6, lines 13-26; and Figures 3-6). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Iwatani to detect a pre-start state based on a door-handle manipulation switch signal, in order to enable the system to know immediately when someone opens or closes a door of the vehicle

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwatani in view of the US patent of Itoyama et al. (6,301,529).

As to claim 29, Iwatani discloses all of the claimed features, as set forth above, except for executing warm-up of one or more of the claimed components.

Itoyama discloses detecting warm-up of the catalytic converter (see column 11, lines 36-64 and Figures 33 and 34). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Iwatani to detect warm-up of the catalytic converter, in order to ensure that the catalytic converter works efficiently.

Allowable Subject Matter

10. Claims 12, 13, 24, and 25 allowed.

11. Claims 5, 9, 11, 18, 21, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2836

12. The following is a statement of reasons for the indication of allowable subject matter:

Claims 5 and 18 contain allowable subject matter because none of the prior art of record discloses or suggests detecting an anomaly of the pre-start state detecting means when the OFF-signal of the driver seat switch is not detected and it is detected that the driver retires from the vehicle, in combination with the remaining claimed features.

Claims 9, 11, 21, and 23 contain allowable subject matter because none of the prior art of record discloses or suggests detecting an anomaly of the pre-start state detecting means when a state of a door-handle manipulation switch or a state of a door opening/closing switch is detected by the vehicle state detecting means, and the pre-start state is not detected based on the door opening/closing switch signal or the door-handle switch signal, respectively, for a given period including a given time at which a door-handle or door, respectively, is operated based on the state of the door-handle manipulation switch or the door opening/closing switch, respectively, in combination with the remaining claimed features.

13. The following is an examiner's statement of reasons for allowance:

Claims 12 and 24 contain allowable subject matter because none of the prior art of record discloses or suggests detecting a final anomaly when an anomaly is detected for more than a given period, in combination with the remaining claimed features.

Claims 13 and 25 contain allowable subject matter because none of the prior art of record discloses or suggests continuously incrementing a counter while the anomaly

Art Unit: 2836

of the pre-start state detecting means is being detected, in combination with the remaining claimed features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROBERT L. DEBERADINIS
PRIMARY EXAMINER
